SANTA CRUZ BIOTECHNOLOGY, INC.

NBPF4/6 (S-20): sc-248052

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Members of the neuroblastoma breakpoint family are encoded by genes that map to a region of segmental duplications on human chromosome 1. Both NBPF4 (neuroblastoma breakpoint family member 4) and NBPF6 (neuroblastoma breakpoint family member 6) are cytoplasmic proteins that belong to the NBPF family. NBPF4 contains 123 amino acids and is expressed in testis, while NBPF6 consists of 638 amino acids and contains 3 NBPF domains. Like other NBPF family members, both proteins are encoded by genes that map to human chromosome 1p13.3. Human chromosome 1 spans 260 million base pairs, contains over 3,000 genes, comprises nearly 8% of the human genome and houses a large number of disease-associated genes, including those that are involved in familial adenomatous polyposis, Stickler syndrome, Parkinson's disease, Gaucher disease, schizophrenia and Usher syndrome.

REFERENCES

1. Eudy, J.D., et al. 1998. Mutation of a gene encoding a protein with extracellular matrix motifs in Usher syndrome type IIa. Science 280: 1753-1757.
2. Tayebi, N., et al. 2001. Gaucher disease and parkinsonism: a phenotypic and genotypic characterization. Mol. Genet. Metab. 73: 313-321.
3. Plasilova, M., et al. 2004. Exclusion of an extracolonic disease modifier locus on chromosome 1p33-36 in a large Swiss familial adenomatous polyposis kindred. Eur. J. Hum. Genet. 12: 365-371.
4. Vandepoele, K., et al. 2005. A novel gene family NBPF: intricate structure generated by gene duplications during primate evolution. Mol. Biol. Evol. 22: 2265-2274.
5. Betarbet, R., et al. 2008. Fas-associated factor 1 and Parkinson's disease. Neurobiol. Dis. 31: 309-315.
6. Holliday, E.G., et al. 2009. Strong evidence for a novel schizophrenia risk locus on chromosome 1p31.1 in homogeneous pedigrees from Tamil Nadu, India. Am. J. Psychiatry 166: 206-215.
7. Balcárková, J., et al. 2009. Gain of chromosome arm 1q in patients in relapse and progression of multiple myeloma. Cancer Genet. Cytogenet. 192: 68-72.
8. Yokoi, T., et al. 2009. Analysis of the vitreous membrane in a case of type 1 Stickler syndrome. Graefes Arch. Clin. Exp. Ophthalmol. 247: 715-718.

CHROMOSOMAL LOCATION

Genetic locus: NBPF4/NBPF6 (human) mapping to 1p13.3.

SOURCE

NBPF4/6 (S-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of NBPF6 of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-248052 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

NBPF4/6 (S-20) is recommended for detection of NBPF4 and NBPF6 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); non cross-reactive with other NBPF family members.

Molecular Weight of NBPF4: 14 kDa.

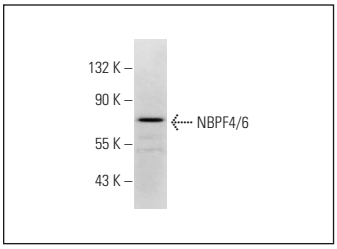
Molecular Weight of NBPF6: 72 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



NBPF4/6 (S-20): sc-248052. Western blot analysis of NBPF4/6 expression in Hep G2 tissue extract.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.